

FACT SHEET



Safety of Life for aviation

The first pan-European Satellite Navigation Service for Safety of Life users

The EGNOS Safety of Life service is dedicated to GNSS users with the most demanding safety requirements. Its introduction will support the International Civil Aviation objectives to provide airspace users with a vertical guidance capability (APV) for any landing procedure.

Since the Safety of Life Service declaration in March 2011, EGNOS signals can support vertical guidance over a service area within the European airspace. This service contributes to a global initiative targeting to replace the existing conventional Non-Precision Approach (NPA) landing procedures based on horizontal guidance only. One of the major aims is to improve safety while reducing Controlled Flight Into Terrain (CFIT) type accidents, which are more likely to occur in the absence of vertical guidance. This initiative applies to regional and domestic airports having no Instrument Landing System (ILS) infrastructure, and in backup of ILS over the main airports, to continue providing vertical guidance in all operational conditions, when the ILS is in maintenance or out of service.

It will be particularly useful in the short term for corporate and business aviation, general aviation and helicopters. Such aircraft are not usually equipped with vertical landing capabilities such as barometric guidance, or prefer a vertical guidance capability of better quality, as provided by EGNOS. In the longer term, it is expected to become the main APV navigation solution for all categories of aircraft.

The EGNOS system has been designed to be fully interoperable with the equivalent North American WAAS and Japanese MSAS regional augmentation systems.

General information about European Global Navigation Satellite Systems

www.satellite-navigation.eu

www.esa.int/nav

ec.europa.eu/enterprise/policies/satnav/egnos

egnos-portal.eu

www.gsa.europa.eu

www.essp-sas.eu

For further information:

ESA Media Relations Office

Tel: +33 1 53 69 71 55

Email: media@esa.int

EC EGNOS Communication Office

Tel. + 32 2 296 5350

Email: entr-egnos@ec.europa.eu

Last updated: April 2011

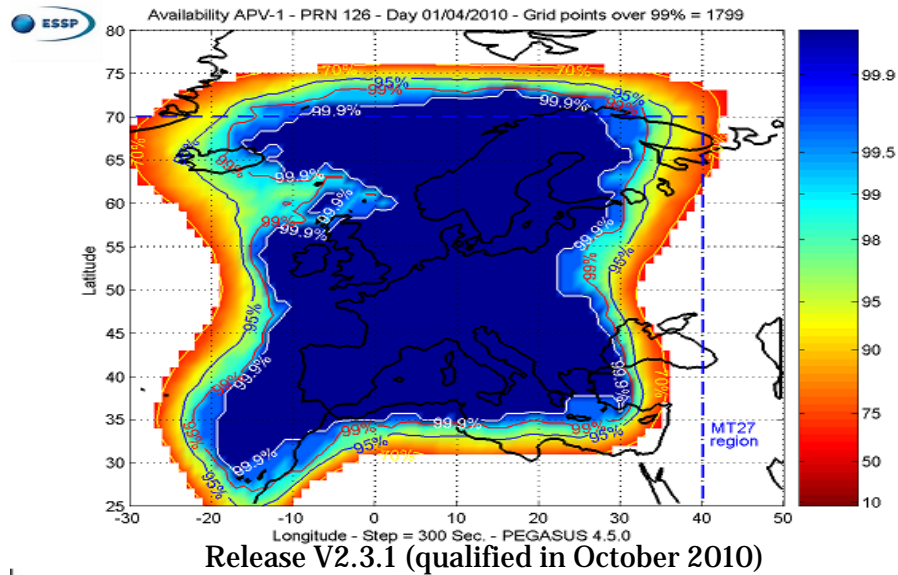


Fact and figures

Main EGNOS beneficiaries:

- Aircraft with no vertical guidance capability (helicopters, regional airlines, business jets, general aviation),
- Airports with no ILS infrastructure (small airfields, helipads).

EGNOS coverage area



EGNOS Vertical Guidance performance

<i>Service Performance Level</i>		<i>APV-I</i>
Accuracy (95%)	<i>Lateral</i>	16 m
	<i>Vertical</i>	20 m
Integrity		$1-2 \cdot 10^{-7}$ in any 150 s
	<i>TTA</i>	10 s^{-1}
	<i>Horizontal AL</i>	40 m
	<i>Vertical AL</i>	50 m
Continuity		$1 \cdot 10^{-4}$ to $5 \cdot 10^{-4}$ in any 15 s
Availability	<i>Global</i>	N/A
	<i>Local</i>	0.99

¹The actual Time to Alarm of the EGNOS system is only 6s, an enhanced performance designed as an EGNOS built-in capability to prepare for more demanding aviation requirements in the future (e.g. Localiser Performance with Vertical Guidance LPV-200).